

## **REMARKS**

### **Amendments to the Specification**

The amendments proposed for the specification, as identified herein, are intended to clarify the scope of the original disclosure. In particular, by amending page 25 in the manner indicated, Applicant is seeking to avoid an erroneous implication that only "a track" may have the conductivity range claimed in Claim 2 (as presently amended). While such an interpretation would be wholly contrary to the disclosure of the present application, by amending page 25, the specification now explicitly indicates that the two sentences previously recited in the first paragraph on page 25 do not depend on each other. The application as originally filed teaches that the "circuit elements" may be other than a track. As such, no new matter is added by this amendment.

### **Interview Summary**

Previously presented claims 11 to 15, 25 and 26 have been cancelled, without prejudice or disclaimer, as agreed in the telephone interview with the Examiner. The Examiner's Interview Summary correctly reflects the interview, which was initiated by the Examiner to address claim 25 and resulted in agreement to cancel the listed claims.

### **Amendments to the Claims**

3Previously presented Claims 2 and 16 have been amended, as indicated herein, to clarify the claims and to further distinguish the subject matter of the claims from the prior art relied upon by the Examiner.

Referring firstly to the issue of clarification, Applicant has amended Claims 2 and 16 to explicitly refer to a range having a lower boundary of  $1 \times 10^0 \text{S.cm}^{-1}$ , as the language of previously presented Claims 2 and 16 could erroneously be interpreted to refer to a relatively narrow range of  $1 \times 10^5 \text{S.cm}^{-1}$  to  $4 \times 10^5 \text{S.cm}^{-1}$ . Applicant's intention, as would appear to have been appreciated by the Examiner, has always been that the range claimed should run from  $1 \times 10^0 \text{S.cm}^{-1}$ , and as such no new matter has been added by this amendment.

Referring now to the issue of the prior art, Applicant has further amended previously presented Claims 2 and 16 to refer only to the deposition of *inorganic* based fluid. Pursuant to this amendment, for consistency, Applicant has cancelled, without prejudice or disclaimer, previously presented Claims 8 and 9.

Applicant notes with thanks the Examiner's assertion in Paragraph 4 of the Office Action that *Fink et al* does not teach a conductivity in the range claimed.

However, Applicant further points out, as previously indicated in Applicant's response of May 2, 2005, that *Fink et al* also fails to teach the formation of "...an electrically conductive circuit element formed on a surface using a drop-on-demand deposition technique to deposit multiple droplets...". *Fink et al* is exclusively concerned by contrast, with the formation of a "self-supporting, or free-standing, three-dimensional unitary structural body..." (lines 11 to 13, Column 1) and at no point does *Fink et al* teach or suggest the formation of "...an electrically conductive circuit element formed on a surface using a drop-on-demand deposition technique".

The Examiner asserts, in Paragraph 3 of the Office Action, that Fig. 2 and columns 1-2 of *Fink et al* teach or suggest a method of forming an electrically conducting circuit element. However, Fig. 2 is a schematic representation of steps undertaken in a "rapid prototype method" only to provide a desired free-standing, three-dimensional structural body (see lines 16 to 23, Column 4). Moreover, neither of Columns 1 and 2 suggests or teaches an element or method as presently claimed.

*Kulkarni et al*, referenced by the Examiner in the previous Office Action, refers **exclusively** to polymer blends that have an intrinsic conductivity, and as such this reference has no relevance to the deposition of inorganic based fluid as presently claimed. Applicant also notes that *Kulkarni et al* is concerned with injection molding and similar techniques (see lines 26 and 27, Column 3), and makes no mention of drop-on-demand deposition as presently claimed.

Referring now to *Jordan et al*, Applicant notes in the first instance that this reference is related to a high efficiency CdS or CdTe photovoltaic cell and a method of making such a cell. This reference is not in any way related to an electrically conductive circuit element (as presently claimed) or to a drop-on-demand deposition technique. Applicant notes, in particular, that *Jordan et al* is concerned with deposition techniques such as spray pyrolysis, dip coating and gas deposition (see lines 13 to 19, Column 6).

Further, the hypothesized combination of *Fink et al* with *Jordan et al* fails to detract from patentability. Firstly, each of these references is concerned with a different technical field (different from each other and from the claimed invention). The only way anyone would ever think to combine them is if guided improperly by hindsight. Second, both references are silent regarding the formation of electrically conductive circuit elements (as presently claimed). Consequently, even if their teachings were combined (which Applicant believes to be legally

improper and factually unjustified), since neither document suggests the use of a drop-on-demand deposition technique, the claimed invention would not result!

Considering the combination of *Fink et al* with *Kulkarni et al*, Applicant notes that *Fink et al* is concerned with the formation of free-standing, three dimensional bodies whereas *Kulkarni et al* is concerned with blends of intrinsically conductive polymers. Neither reference is concerned with electrically conductive circuit elements formed on a surface using a drop-on-demand deposition technique, and neither reference is concerned with circuit elements formed of inorganic-based fluid. Thus, with respect to this hypothesized combination, one also finds that (a) the combination is not, in fact, suggested to one skilled in the art and (b) even if the combination were made, the claimed invention would not be the result.

Nothing in *Fink et al* or anywhere else makes any disclosure or suggestion that would motivate one of ordinary skill in the art to consider using polymer blends (as taught by *Kulkarni et al*) or to use the teachings of a method for making a photovoltaic cell (as taught by *Jordan et al*) to obtain the claimed invention.

In light of the foregoing, neither *Fink et al* nor any other reference or information of record provides one of ordinary skill in the art with the necessary motivation to consider material (such as that disclosed in *Kulkarni et al* or *Jordan et al*) in an entirely unrelated technical field. If, in spite of this prejudice, one skilled in the art were to consider combining *Fink et al* with either *Kulkarni et al* or *Jordan et al*, then that skilled person would still not arrive at the teachings or claim limitations of the present invention. Specifically, none of the combinations proposed would provide or suggest to one of ordinary skill in the art all of the limitations recited in presently amended claims 2 and 16. Consequently, amended Claims 2 and 16 patentably distinguish over any one or more of *Fink et al*, *Kulkarni et al* or *Jordan et al*.

Dependent claims 3 to 7, 10, 17 to 24, and 27 are also allowable if only by virtue of their dependence on an allowable main claim.

Applicant therefore requests reconsideration and allowance of the claims accompanying this amendment.

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**CONCLUSION**

A Notice of Allowance is respectfully requested. The Examiner is requested to call the undersigned at the telephone number listed below if this communication does not place the case in condition for allowance.

Applicant hereby requests a three month extension of time to the deadline provided for response to the Office Action mailed on June 29, 2005. If the fee occasioned by this response, including the extension fees, are not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

Respectfully submitted,

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